Table 1: THE HYPERVOLUME PERFORMANCE OF EACH SUBSET SELECTION METHOD ON EACH CANDIDATE SOLUTION SET. THE MAXIMUM NUMBER OF SOLUTION EVALUATIONS FOR EACH TEST PROBLEM IS 10,000. THE NUMBER IN THE PARENTHESIS IS THE RANK OF THE CORRESPONDING METHOD AMONG THE 10 METHODS, WHERE A SMALLER VALUE INDICATES A BETTER RANK.

Candidate Solution Set		GHSS	GAHSS	GIGDSS	GIGD+SS	DSS	IDSS	CSS-MEA	CSS-MED	RVSS-PD	RVSS-AD
MOEAD WFG3	3	**3.41E+1(1)**	3.40E+1(2)	3.17E+1(10)	3.23E+1(8)	3.35E+1(3)	3.23E+1(9)	3.24E+1(6)	3.24E+1(7)	3.32E+1(4)	3.31E+1(5)
	5	**1.22E+4(1)**	1.21E+4(2)	1.10E+4(10)	1.13E+4(8)	1.18E+4(5)	1.13E+4(7)	1.13E+4(9)	1.13E+4(6)	1.20E+4(3)	1.19E+4(4)
	8	**7.69E+7(1)**	7.61E+7(2)	6.72E+7(10)	6.89E+7(6)	7.22E+7(3)	6.83E+7(9)	6.88E+7(7)	6.86E+7(8)	7.06E+7(4)	7.03E+7(5)
	10	**4.73E+10(1)**	4.72E+10(2)	4.01E+10(10)	4.58E+10(3)	4.43E+10(4)	4.11E+10(6)	4.07E+10(8)	4.05E+10(9)	4.08E+10(7)	4.13E+10(5)
MOEAD MinusDTLZ1	3	**8.60E+7(1)**	8.58E+7(2)	8.21E+7(8)	8.47E+7(3)	8.33E+7(5)	8.34E+7(4)	8.23E+7(7)	8.24E+7(6)	8.01E+7(9)	7.97E+7(10)
	5	**4.16E+12(1)**	4.12E+12(2)	3.57E+12(8)	3.80E+12(4)	3.82E+12(3)	3.77E+12(5)	3.63E+12(6)	3.62E+12(7)	3.42E+12(9)	2.97E+12(10)
	8	**4.17E+18(1)**	4.07E+18(2)	2.70E+18(8)	2.88E+18(7)	3.74E+18(3)	3.22E+18(4)	3.02E+18(6)	3.03E+18(5)	2.22E+18(9)	1.91E+18(10)
	10	**4.43E+22(1)**	4.39E+22(2)	3.61E+22(7)	3.86E+22(5)	4.24E+22(3)	3.24E+22(8)	3.83E+22(6)	3.88E+22(4)	2.79E+22(9)	2.45E+22(10)
MOEAD MinusDTLZ2	3	**4.43E+1(1)**	4.41E+1(2)	4.31E+1(8)	4.33E+1(7)	4.37E+1(3)	4.37E+1(4)	4.33E+1(6)	4.34E+1(5)	4.30E+1(9)	4.29E+1(10)
	5	**2.46E+2(1)**	2.43E+2(2)	2.08E+2(8)	2.13E+2(7)	2.32E+2(3)	2.23E+2(4)	2.15E+2(6)	2.17E+2(5)	1.96E+2(9)	1.91E+2(10)
	8	**1.13E+3(1)**	1.09E+3(2)	6.52E+2(10)	6.66E+2(9)	1.00E+3(3)	8.83E+2(4)	7.15E+2(7)	7.18E+2(5)	7.16E+2(6)	6.93E+2(8)
	10	**1.40E+3(1)**	1.38E+3(2)	6.92E+2(10)	7.61E+2(9)	1.30E+3(3)	9.76E+2(6)	8.87E+2(8)	9.36E+2(7)	1.13E+3(4)	9.98E+2(5)
MOEAD DTLZ1	3	1.81E-1(2)	**1.82E-1(1)**	1.76E-1(10)	1.79E-1(7)	1.80E-1(5)	1.80E-1(6)	1.77E-1(8)	1.77E-1(9)	1.81E-1(3)	1.81E-1(4)
	5	**6.72E-2(2)**	6.72E-2(2)	6.65E-2(9)	6.67E-2(7)	6.69E-2(3)	6.68E-2(6)	6.64E-2(10)	6.66E-2(8)	6.68E-2(4)	6.68E-2(5)
	8	**1.36E-2(1)**	1.34E-2(2)	1.02E-2(6)	1.32E-2(3)	6.74E-3(10)	8.45E-3(9)	9.73E-3(7)	9.08E-3(8)	1.23E-2(5)	1.26E-2(4)
	10	**4.50E-3(1)**	4.10E-3(5)	3.34E-3(6)	4.21E-3(2)	2.40E-3(9)	1.43E-3(10)	3.11E-3(7)	2.98E-3(8)	4.10E-3(4)	4.20E-3(3)
MOEAD DTLZ2	3	**1.15E+0(1)**	1.14E+0(3)	1.12E+0(9)	1.14E+0(2)	1.13E+0(8)	1.13E+0(6)	1.12E+0(10)	1.13E+0(7)	1.14E+0(4.5)	1.14E+0(4.5)
	5	**2.17E+0(1)**	2.16E+0(2)	2.06E+0(10)	2.15E+0(3)	2.11E+0(7)	2.11E+0(6)	2.07E+0(8)	2.07E+0(9)	2.14E+0(4)	2.14E+0(5)
	8	**4.05E+0(1)**	4.00E+0(2)	3.39E+0(9)	3.89E+0(5)	3.84E+0(6)	3.78E+0(7)	3.40E+0(8)	3.35E+0(10)	3.94E+0(3)	3.93E+0(4)
	10	**5.82E+0(1)**	5.76E+0(2)	4.96E+0(10)	5.61E+0(3)	5.40E+0(6)	5.30E+0(7)	5.02E+0(8)	5.00E+0(9)	5.56E+0(4)	5.54E+0(5)
MOEAD DTLZ7	3	**2.70E+0(1)**	2.69E+0(2)	2.60E+0(8)	2.67E+0(3)	2.65E+0(4)	2.65E+0(5)	2.62E+0(7)	2.63E+0(6)	2.12E+0(10)	2.13E+0(9)
	5	**1.39E+0(1)**	1.39E+0(2)	1.26E+0(8)	1.32E+0(4)	1.36E+0(3)	1.29E+0(6)	1.29E+0(7)	1.31E+0(5)	8.62E-1(10)	9.56E-1(9)
	8	**5.81E-2(1)**	5.07E-2(2)	2.80E-2(7)	4.24E-2(4)	2.37E-2(8)	4.55E-2(3)	2.93E-2(5)	2.88E-2(6)	4.03E-3(10)	7.93E-3(9)
	10	**1.44E-3(1)**	1.23E-3(2)	4.78E-4(6)	9.97E-4(3)	1.93E-4(9)	9.83E-4(4)	4.01E-4(7)	3.89E-4(8)	6.73E-5(10)	5.17E-4(5)
Avg Rank		**1.04**	2.12	8.54	5.08	4.96	6.04	7.25	6.96	6.40	6.60

Table 2: THE IGD PERFORMANCE OF EACH SUBSET SELECTION METHOD ON EACH CANDIDATE SOLUTION SET. THE MAXIMUM NUMBER OF SOLUTION EVALUATIONS FOR EACH TEST PROBLEM IS 10,000. THE NUMBER IN THE PARENTHESIS IS THE RANK OF THE CORRESPONDING METHOD AMONG THE 10 METHODS, WHERE A SMALLER VALUE INDICATES A BETTER RANK.

Candidate Solution Set		GHSS	GAHSS	GIGDSS	GIGD+SS	DSS	IDSS	CSS-MEA	CSS-MED	RVSS-PD	RVSS-AD
MOEAD WFG3	3	1.39E-1(8)	1.17E-1(5)	1.23E-1(7)	1.19E-1(6)	**1.11E-1(1)**	1.12E-1(2)	1.15E-1(4)	1.13E-1(3)	1.76E-1(9)	1.81E-1(10)
	5	5.28E-1(3)	**5.06E-1(1)**	6.03E-1(8)	6.28E-1(10)	5.09E-1(2)	5.41E-1(4)	5.64E-1(6)	5.56E-1(5)	5.74E-1(7)	6.06E-1(9)
	8	1.90E+0(6)	1.76E+0(3)	2.03E+0(9)	2.03E+0(10)	**1.67E+0(1)**	1.86E+0(5)	1.96E+0(8)	1.93E+0(7)	1.73E+0(2)	1.78E+0(4)
	10	3.14E+0(3)	3.11E+0(2)	3.57E+0(9)	3.67E+0(10)	**3.02E+0(1)**	3.56E+0(8)	3.39E+0(6)	3.32E+0(5)	3.41E+0(7)	3.27E+0(4)
MOEAD MinusDTLZ1	3	2.81E+1(2)	**2.79E+1(1)**	3.38E+1(8)	3.23E+1(6)	2.91E+1(3)	3.02E+1(4)	3.30E+1(7)	3.21E+1(5)	4.31E+1(9)	4.40E+1(10)
	5	**6.06E+1(1)**	6.08E+1(2)	6.77E+1(7)	6.86E+1(8)	6.20E+1(3)	6.33E+1(4)	6.63E+1(6)	6.54E+1(5)	7.67E+1(9)	9.42E+1(10)
	8	**1.69E+2(1)**	1.71E+2(3)	2.03E+2(7)	2.32E+2(10)	1.71E+2(2)	1.88E+2(4)	1.90E+2(6)	1.89E+2(5)	2.11E+2(9)	2.10E+2(8)
	10	1.81E+2(2)	1.82E+2(3)	1.89E+2(6)	1.92E+2(7)	**1.80E+2(1)**	1.96E+2(8)	1.86E+2(5)	1.85E+2(4)	2.04E+2(9)	2.11E+2(10)
MOEAD MinusDTLZ2	3	2.31E-1(2)	2.43E-1(4)	2.88E-1(9)	3.36E-1(10)	**2.27E-1(1)**	2.39E-1(3)	2.78E-1(6)	2.68E-1(5)	2.81E-1(8)	2.81E-1(7)
	5	6.64E-1(2)	6.64E-1(3)	8.76E-1(9)	9.42E-1(10)	**6.63E-1(1)**	7.70E-1(4)	8.24E-1(6)	7.97E-1(5)	8.29E-1(8)	8.28E-1(7)
	8	1.64E+0(2)	1.65E+0(3)	1.95E+0(9)	1.99E+0(10)	**1.64E+0(1)**	1.78E+0(4)	1.90E+0(8)	1.89E+0(7)	1.87E+0(6)	1.86E+0(5)
	10	2.29E+0(2)	2.30E+0(3)	2.42E+0(9)	2.52E+0(10)	**2.24E+0(1)**	2.39E+0(8)	2.36E+0(6)	2.33E+0(5)	2.37E+0(7)	2.32E+0(4)
MOEAD DTLZ1	3	2.89E-2(10)	**2.62E-2(1)**	2.89E-2(9)	2.72E-2(2)	2.81E-2(7)	2.74E-2(3)	2.85E-2(8)	2.80E-2(6)	2.75E-2(4)	2.79E-2(5)
	5	7.15E-2(10)	**6.65E-2(1)**	6.92E-2(7)	6.77E-2(4)	6.74E-2(2)	6.76E-2(3)	6.94E-2(8)	6.84E-2(5)	6.88E-2(6)	7.04E-2(9)
	8	1.20E-1(4)	1.20E-1(5)	1.44E-1(6)	1.19E-1(3)	1.95E-1(9)	1.98E-1(10)	1.50E-1(7)	1.57E-1(8)	**1.16E-1(1)**	1.19E-1(2)
	10	1.40E-1(4)	1.53E-1(5)	1.56E-1(6)	1.40E-1(2)	1.95E-1(9)	3.17E-1(10)	1.64E-1(7)	1.69E-1(8)	**1.33E-1(1)**	1.40E-1(3)
MOEAD DTLZ2	3	7.85E-2(10)	6.81E-2(9)	5.71E-2(6)	6.55E-2(8)	5.75E-2(7)	5.62E-2(4)	5.66E-2(5)	5.52E-2(3)	**5.51E-2(1.5)**	**5.51E-2(1.5)**
	5	1.91E-1(10)	1.78E-1(9)	1.64E-1(2)	1.77E-1(8)	1.68E-1(5)	1.67E-1(4)	1.65E-1(3)	**1.63E-1(1)**	1.72E-1(6)	1.73E-1(7)
	8	3.71E-1(10)	3.50E-1(8)	3.37E-1(7)	3.54E-1(9)	3.37E-1(6)	3.34E-1(5)	3.33E-1(2)	**3.31E-1(1)**	3.33E-1(4)	3.33E-1(3)
	10	4.19E-1(10)	3.91E-1(3)	3.98E-1(8)	4.02E-1(9)	3.91E-1(4)	3.91E-1(5)	3.96E-1(7)	3.96E-1(6)	**3.78E-1(1)**	3.79E-1(2)
MOEAD DTLZ7	3	**8.54E-2(1)**	8.67E-2(2)	9.39E-2(8)	9.30E-2(7)	8.90E-2(4)	8.86E-2(3)	9.24E-2(6)	8.96E-2(5)	3.50E-1(10)	3.34E-1(9)
	5	6.97E-1(2)	7.03E-1(4)	7.16E-1(7)	7.18E-1(8)	**6.94E-1(1)**	7.05E-1(5)	7.07E-1(6)	7.03E-1(3)	9.54E-1(10)	8.48E-1(9)
	8	1.15E+0(2)	1.20E+0(7)	1.18E+0(4)	1.20E+0(6)	1.24E+0(8)	**1.14E+0(1)**	1.18E+0(3)	1.18E+0(5)	4.07E+0(10)	2.46E+0(9)
	10	1.66E+0(6)	2.35E+0(9)	1.56E+0(2)	1.69E+0(7)	1.61E+0(5)	**1.55E+0(1)**	1.57E+0(3)	1.57E+0(4)	5.88E+0(10)	1.76E+0(8)
Avg Rank		4.71	4.00	7.04	7.50	**3.54**	4.67	5.79	4.83	6.44	6.48

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Table 3: THE IGD+ PERFORMANCE OF EACH SUBSET SELECTION METHOD ON EACH CANDIDATE SOLUTION SET. THE MAXIMUM NUMBER OF SOLUTION EVALUATIONS FOR EACH TEST PROBLEM IS 10,000. THE NUMBER IN THE PARENTHESIS IS THE RANK OF THE CORRESPONDING METHOD AMONG THE 10 METHODS, WHERE A SMALLER VALUE INDICATES A BETTER RANK.

Candidate Solution Set		GHSS	GAHSS	GIGDSS	GIGD+SS	DSS	IDSS	CSS-MEA	CSS-MED	RVSS-PD	RVSS-AD
MOEAD WFG3	3	5.74E-2(2)	**5.69E-2(1)**	7.09E-2(8)	5.80E-2(3)	6.27E-2(4)	6.52E-2(5)	6.64E-2(7)	6.63E-2(6)	8.77E-2(9)	9.32E-2(10)
	5	2.22E-1(2)	**2.04E-1(1)**	2.50E-1(7)	2.23E-1(3)	2.57E-1(8)	2.45E-1(6)	2.37E-1(4)	2.38E-1(5)	2.81E-1(9)	3.33E-1(10)
	8	7.21E-1(9)	6.18E-1(2)	6.55E-1(5)	**5.98E-1(1)**	6.57E-1(6)	6.61E-1(7)	6.39E-1(4)	6.39E-1(3)	6.75E-1(8)	7.55E-1(10)
	10	9.65E-1(2)	**9.39E-1(1)**	9.94E-1(8)	9.80E-1(5)	9.82E-1(6)	9.84E-1(7)	9.76E-1(4)	9.73E-1(3)	1.02E+0(9)	1.04E+0(10)
MOEAD MinusDTLZ1	3	**2.23E+1(1)**	2.24E+1(2)	2.88E+1(8)	2.50E+1(4)	2.49E+1(3)	2.59E+1(5)	2.83E+1(7)	2.78E+1(6)	3.62E+1(9)	3.69E+1(10)
	5	**4.52E+1(1)**	4.56E+1(2)	5.28E+1(8)	5.06E+1(5)	4.93E+1(3)	5.01E+1(4)	5.21E+1(7)	5.21E+1(6)	5.52E+1(9)	6.54E+1(10)
	8	**1.49E+2(1)**	1.50E+2(2)	1.79E+2(10)	1.76E+2(8)	1.52E+2(3)	1.68E+2(5)	1.69E+2(6)	1.70E+2(7)	1.63E+2(4)	1.76E+2(9)
	10	**1.66E+2(1)**	1.66E+2(2)	1.71E+2(7)	1.69E+2(4)	1.66E+2(3)	1.79E+2(10)	1.69E+2(6)	1.69E+2(5)	1.72E+2(8)	1.77E+2(9)
MOEAD MinusDTLZ2	3	**9.61E-2(1)**	1.00E-1(2)	1.33E-1(8)	1.24E-1(5)	1.16E-1(4)	1.16E-1(3)	1.27E-1(7)	1.24E-1(6)	1.45E-1(9)	1.46E-1(10)
	5	**3.05E-1(1)**	3.17E-1(2)	4.53E-1(8)	4.43E-1(7)	3.50E-1(3)	3.90E-1(4)	4.22E-1(6)	4.09E-1(5)	4.73E-1(9)	4.83E-1(10)
	8	**7.80E-1(1)**	7.91E-1(2)	1.08E+0(10)	1.07E+0(9)	8.16E-1(3)	9.08E-1(4)	1.01E+0(5)	1.01E+0(6)	1.03E+0(8)	1.02E+0(7)
	10	**1.26E+0(1)**	1.27E+0(2)	1.48E+0(10)	1.45E+0(9)	1.27E+0(3)	1.38E+0(7)	1.39E+0(8)	1.36E+0(6)	1.32E+0(4)	1.34E+0(5)
MOEAD DTLZ1	3	2.66E-2(6)	**2.46E-2(1)**	2.73E-2(10)	2.54E-2(2)	2.68E-2(8)	2.62E-2(4)	2.70E-2(9)	2.66E-2(7)	2.62E-2(3)	2.65E-2(5)
	5	5.20E-2(9)	**4.91E-2(1)**	5.15E-2(8)	4.97E-2(2)	5.03E-2(3)	5.04E-2(4)	5.15E-2(7)	5.10E-2(6)	5.08E-2(5)	5.23E-2(10)
	8	7.38E-2(4)	7.43E-2(5)	8.73E-2(6)	7.26E-2(2)	1.20E-1(9)	1.31E-1(10)	9.11E-2(7)	9.47E-2(8)	**7.10E-2(1)**	7.32E-2(3)
	10	8.74E-2(3)	9.62E-2(5)	9.63E-2(6)	8.48E-2(2)	1.20E-1(9)	2.93E-1(10)	1.01E-1(7)	1.05E-1(8)	**8.19E-2(1)**	8.76E-2(4)
MOEAD DTLZ2	3	**2.23E-2(1)**	2.46E-2(3)	2.90E-2(9)	2.34E-2(2)	2.88E-2(8)	2.70E-2(6)	2.92E-2(10)	2.73E-2(7)	2.47E-2(4.5)	2.47E-2(4.5)
	5	**7.31E-2(1)**	7.69E-2(3)	9.24E-2(9)	7.56E-2(2)	9.54E-2(10)	9.12E-2(7)	9.22E-2(8)	9.09E-2(6)	8.24E-2(4)	8.28E-2(5)
	8	**1.59E-1(1)**	1.66E-1(2)	2.05E-1(10)	1.71E-1(5)	1.91E-1(7)	1.89E-1(6)	2.01E-1(9)	2.01E-1(8)	1.67E-1(3)	1.68E-1(4)
	10	2.18E-1(2)	**2.15E-1(1)**	2.62E-1(10)	2.26E-1(5)	2.51E-1(6)	2.54E-1(7)	2.58E-1(8)	2.59E-1(9)	2.20E-1(3)	2.22E-1(4)
MOEAD DTLZ7	3	**5.79E-2(1)**	5.91E-2(2)	7.33E-2(8)	5.99E-2(3)	7.02E-2(7)	6.84E-2(4)	7.00E-2(6)	6.91E-2(5)	2.02E-1(10)	2.01E-1(9)
	5	**4.88E-1(1)**	4.88E-1(2)	5.00E-1(8)	4.95E-1(4)	4.94E-1(3)	4.97E-1(6)	4.98E-1(7)	4.95E-1(5)	5.37E-1(10)	5.26E-1(9)
	8	**9.03E-1(1)**	9.04E-1(2)	9.50E-1(6)	9.21E-1(4)	9.71E-1(8)	9.17E-1(3)	9.49E-1(5)	9.51E-1(7)	1.13E+0(10)	1.07E+0(9)
	10	**1.35E+0(1)**	1.35E+0(2)	1.39E+0(6)	1.36E+0(3)	1.47E+0(9)	1.37E+0(4)	1.43E+0(7)	1.43E+0(8)	1.52E+0(10)	1.38E+0(5)
Avg Rank		2.25	**2.08**	8.04	4.12	5.67	5.75	6.71	6.17	6.65	7.56

Table 4: THE UNIFORMITY LEVEL PERFORMANCE OF EACH SUBSET SELECTION METHOD ON EACH CANDIDATE SOLUTION SET. THE MAXIMUM NUMBER OF SOLUTION EVALUATIONS FOR EACH TEST PROBLEM IS 10,000. THE NUMBER IN THE PARENTHESIS IS THE RANK OF THE CORRESPONDING METHOD AMONG THE 10 METHODS, WHERE A SMALLER VALUE INDICATES A BETTER RANK.

Candidate Solution Set		GHSS	GAHSS	GIGDSS	GIGD+SS	DSS	IDSS	CSS-MEA	CSS-MED	RVSS-PD	RVSS-AD
MOEAD WFG3	3	4.65E-2(7)	1.16E-1(3)	5.15E-2(6)	3.85E-2(8)	**2.09E-1(1)**	1.95E-1(2)	8.85E-2(5)	9.19E-2(4)	0(9.5)	0(9.5)
	5	8.94E-2(7)	2.60E-1(3)	9.69E-2(6)	6.70E-2(8)	**7.02E-1(1)**	5.65E-1(2)	2.14E-1(5)	2.35E-1(4)	0(9.5)	0(9.5)
	8	1.35E-1(8)	8.25E-1(3)	2.62E-1(6)	1.90E-1(7)	**1.60E+0(1)**	1.14E+0(2)	3.62E-1(5)	3.97E-1(4)	0(9.5)	0(9.5)
	10	1.61E-1(6)	4.07E-1(3)	8.95E-2(7)	6.28E-2(8)	**1.37E+0(1)**	7.49E-1(2)	2.19E-1(5)	2.41E-1(4)	0(9.5)	0(9.5)
MOEAD MinusDTLZ1	3	9.46E+0(6)	1.96E+1(4)	8.51E+0(8)	9.25E+0(7)	**4.21E+1(1)**	4.09E+1(2)	1.03E+1(5)	2.12E+1(3)	0(9.5)	0(9.5)
	5	3.27E+1(4)	5.24E+1(3)	1.63E+1(8)	1.69E+1(7)	**7.87E+1(1)**	6.65E+1(2)	2.26E+1(6)	2.63E+1(5)	0(9.5)	0(9.5)
	8	2.48E+1(4)	3.97E+1(3)	1.16E+1(8)	1.24E+1(7)	**6.48E+1(1)**	4.97E+1(2)	1.60E+1(6)	1.99E+1(5)	0(9.5)	0(9.5)
	10	4.45E+0(6)	1.46E+1(3)	2.13E+0(7)	2.09E+0(8)	**4.15E+1(1)**	2.11E+1(2)	5.97E+0(5)	7.07E+0(4)	0(9.5)	0(9.5)
MOEAD MinusDTLZ2	3	1.65E-1(5)	2.47E-1(3)	1.41E-1(7)	9.82E-2(8)	**3.34E-1(1)**	3.33E-1(2)	1.44E-1(6)	1.95E-1(4)	0(9.5)	0(9.5)
	5	2.79E-1(4)	4.31E-1(3)	1.62E-1(7)	1.14E-1(8)	**7.16E-1(1)**	5.94E-1(2)	2.32E-1(6)	2.66E-1(5)	0(9.5)	0(9.5)
	8	4.17E-1(4)	5.53E-1(3)	2.75E-1(6)	1.87E-1(8)	**9.26E-1(1)**	7.28E-1(2)	2.39E-1(7)	2.81E-1(5)	0(9.5)	0(9.5)
	10	1.70E-1(4)	3.37E-1(3)	9.09E-2(7)	5.57E-2(8)	**6.05E-1(1)**	4.11E-1(2)	9.64E-2(6)	1.38E-1(5)	0(9.5)	0(9.5)
MOEAD DTLZ1	3	1.43E-3(8)	2.50E-2(3)	1.46E-2(7)	1.81E-2(5)	3.84E-2(2)	**3.93E-2(1)**	1.59E-2(6)	2.27E-2(4)	0(9.5)	0(9.5)
	5	1.25E-3(8)	8.83E-3(4)	8.20E-3(5)	6.01E-3(7)	**3.12E-2(1)**	3.07E-2(2)	7.73E-3(6)	1.57E-2(3)	0(9.5)	0(9.5)
	8	3.25E-3(8)	3.70E-2(5)	3.27E-2(6)	1.44E-2(7)	**3.96E-1(1)**	2.49E-2(2)	5.83E-2(4)	7.46E-2(3)	0(9.5)	0(9.5)
	10	1.09E-3(8)	5.83E-2(5)	4.03E-2(6)	1.53E-2(7)	**6.22E-1(1)**	3.98E-2(2)	6.77E-2(4)	8.70E-2(3)	0(9.5)	0(9.5)
MOEAD DTLZ2	3	4.17E-2(9)	6.06E-2(6)	5.40E-2(7)	3.32E-2(10)	1.10E-1(2)	**1.11E-1(1)**	4.99E-2(8)	7.47E-2(5)	8.73E-2(3.5)	8.73E-2(3.5)
	5	3.17E-2(10)	7.38E-2(8)	1.17E-1(6)	6.81E-2(9)	**2.51E-1(1)**	2.39E-1(2)	9.70E-2(7)	1.25E-1(5)	1.55E-1(3.5)	1.55E-1(3.5)
	8	3.65E-2(8)	1.29E-1(4)	1.06E-1(6)	9.14E-2(7)	**4.21E-1(1)**	3.68E-1(2)	1.14E-1(5)	1.48E-1(3)	3.14E-2(9)	0(10)
	10	1.77E-2(8)	1.42E-1(3)	1.04E-1(6)	6.98E-2(7)	**4.12E-1(1)**	3.33E-1(2)	1.04E-1(5)	1.27E-1(4)	0(9.5)	0(9.5)
MOEAD DTLZ7	3	1.52E-2(6)	2.97E-2(4)	1.28E-2(8)	1.46E-2(7)	**1.02E-1(1)**	9.42E-2(2)	2.38E-2(5)	3.92E-2(3)	0(9.5)	0(9.5)
	5	2.10E-2(6)	3.07E-2(4)	1.29E-2(7)	1.02E-2(8)	**1.18E-1(1)**	8.17E-2(2)	2.84E-2(5)	3.83E-2(3)	0(9.5)	0(9.5)
	8	8.06E-2(4)	1.50E-1(2)	3.47E-2(7)	1.68E-2(8)	**7.87E-1(1)**	1.47E-1(3)	4.53E-2(6)	5.31E-2(5)	0(9.5)	0(9.5)
	10	6.00E-2(4)	1.37E-1(2)	3.51E-2(7)	2.19E-2(8)	**7.80E-1(1)**	1.07E-1(3)	4.30E-2(6)	4.52E-2(5)	0(9.5)	0(9.5)
Avg Rank		6.33	3.62	6.71	7.58	**1.08**	2.00	5.58	4.08	8.98	9.02

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Table 5: THE RUNTIME PERFORMANCE OF EACH SUBSET SELECTION METHOD ON EACH CANDIDATE SOLUTION SET. THE MAXIMUM NUMBER OF SOLUTION EVALUATIONS FOR EACH TEST PROBLEM IS 10,000. THE NUMBER IN THE PARENTHESIS IS THE RANK OF THE CORRESPONDING METHOD AMONG THE 10 METHODS, WHERE A SMALLER VALUE INDICATES A BETTER RANK.

Candidate Solution Set		GHSS	GAHSS	GIGDSS	GIGD+SS	DSS	IDSS	CSS-MEA	CSS-MED	RVSS-PD	RVSS-AD
MOEAD WFG3	3	1.69E+0(7)	6.97E-1(6)	7.85E+0(9)	1.25E+1(10)	2.64E-1(4)	4.07E-1(5)	9.62E-2(3)	2.90E+0(8)	2.31E-2(2)	**4.67E-3(1)**
	5	1.07E+1(7)	5.89E+0(6)	3.22E+1(9)	6.54E+1(10)	2.71E+0(5)	7.79E-1(4)	7.21E-1(3)	2.90E+1(8)	4.21E-2(2)	**1.13E-2(1)**
	8	1.07E+2(10)	4.30E+0(6)	3.33E+1(8)	6.42E+1(9)	1.62E+0(5)	6.27E-1(4)	5.38E-1(3)	2.20E+1(7)	3.19E-2(2)	**1.73E-2(1)**
	10	2.48E+3(10)	1.00E+1(6)	3.52E+1(7)	7.05E+1(9)	5.93E+0(5)	1.26E+0(4)	8.42E-1(3)	3.68E+1(8)	8.17E-2(2)	**3.25E-2(1)**
MOEAD MinusDTLZ1	3	4.01E-1(6)	2.61E-1(5)	1.98E+0(9)	1.89E+0(8)	7.65E-2(4)	4.03E-1(7)	3.88E-2(3)	2.85E+1(10)	5.87E-3(2)	**1.27E-3(1)**
	5	2.73E+0(7)	2.39E+0(6)	1.34E+1(8)	2.23E+1(10)	1.39E+0(5)	7.68E-1(4)	2.46E-1(3)	1.63E+1(9)	5.36E-2(2)	**9.82E-3(1)**
	8	3.97E+0(7)	3.38E+0(6)	1.98E+1(9)	3.75E+1(10)	1.06E+0(5)	6.10E-1(4)	2.65E-1(3)	1.69E+1(8)	1.95E-2(2)	**7.06E-3(1)**
	10	5.78E+0(7)	5.50E+0(6)	1.98E+1(8)	3.49E+1(10)	3.78E+0(5)	1.25E+0(4)	4.02E-1(3)	3.01E+1(9)	6.46E-2(2)	**2.20E-2(1)**
MOEAD MinusDTLZ2	3	7.88E-1(7)	4.03E-1(5)	4.01E+0(8)	4.56E+0(9)	1.69E-1(4)	4.06E-1(6)	6.46E-2(3)	6.15E+1(10)	1.03E-2(2)	**6.11E-3(1)**
	5	4.05E+0(6)	5.49E+0(7)	1.96E+1(8)	3.06E+1(10)	3.39E+0(5)	7.73E-1(4)	4.86E-1(3)	2.54E+1(9)	**2.42E-2(1)**	4.30E-2(2)
	8	2.39E+1(7)	5.39E+0(6)	2.61E+1(9)	4.38E+1(10)	2.58E+0(5)	6.09E-1(4)	5.81E-1(3)	2.44E+1(8)	7.33E-2(2)	**2.73E-2(1)**
	10	7.64E+2(10)	7.54E+0(6)	2.70E+1(7)	4.90E+1(9)	7.34E+0(5)	1.25E+0(4)	9.09E-1(3)	2.85E+1(8)	2.28E-1(2)	**5.14E-2(1)**
MOEAD DTLZ1	3	4.37E-1(7)	1.75E-1(5)	9.52E-1(9)	8.65E-1(8)	5.77E-2(4)	4.01E-1(6)	2.90E-2(3)	1.07E+1(10)	**4.59E-3(1)**	7.41E-3(2)
	5	4.00E-1(6)	2.98E-1(5)	5.66E-1(8)	4.10E-1(7)	1.56E-1(4)	7.60E-1(9)	4.41E-2(3)	6.14E+0(10)	7.66E-3(2)	**3.50E-3(1)**
	8	8.03E-1(9)	3.60E-1(5)	7.48E-1(8)	6.57E-1(7)	1.39E-1(4)	6.00E-1(6)	4.64E-2(3)	1.11E+1(10)	1.35E-2(2)	**6.22E-3(1)**
	10	1.05E+1(9)	2.52E+0(7)	2.88E+0(8)	2.19E+0(6)	1.64E+0(5)	1.23E+0(4)	1.23E-1(3)	1.21E+2(10)	3.04E-2(2)	**1.07E-2(1)**
MOEAD DTLZ2	3	7.77E-1(7)	4.19E-1(6)	2.72E+0(8)	3.61E+0(9)	1.27E-1(4)	3.99E-1(5)	4.83E-2(3)	4.95E+1(10)	5.04E-3(2)	**1.99E-3(1)**
	5	4.70E+0(7)	2.90E+0(5)	1.73E+1(8)	3.01E+1(10)	2.95E+0(6)	7.52E-1(4)	4.28E-1(3)	2.29E+1(9)	2.57E-2(2)	**8.06E-3(1)**
	8	5.20E+1(9)	3.55E+0(6)	2.91E+1(8)	5.98E+1(10)	2.12E+0(5)	6.13E-1(4)	6.01E-1(3)	2.07E+1(7)	9.58E-2(2)	**1.43E-2(1)**
	10	2.38E+3(10)	9.44E+0(6)	3.34E+1(7)	6.41E+1(9)	9.30E+0(5)	1.25E+0(4)	6.96E-1(3)	4.16E+1(8)	2.13E-1(2)	**4.75E-2(1)**
MOEAD DTLZ7	3	2.90E-1(6)	1.63E-1(5)	8.76E-1(9)	8.03E-1(8)	5.68E-2(4)	3.87E-1(7)	2.79E-2(3)	1.02E+1(10)	1.99E-3(2)	**7.57E-4(1)**
	5	1.73E+0(7)	1.20E+0(6)	4.74E+0(8)	5.34E+0(9)	9.17E-1(5)	7.48E-1(4)	1.52E-1(3)	1.28E+2(10)	3.29E-2(2)	**8.10E-3(1)**
	8	2.71E+0(6)	3.63E+0(7)	1.83E+1(9)	2.37E+1(10)	1.97E+0(5)	6.00E-1(4)	3.98E-1(3)	1.00E+1(8)	7.93E-2(2)	**1.95E-2(1)**
	10	1.29E+1(7)	7.12E+0(6)	2.55E+1(8)	3.76E+1(10)	6.93E+0(5)	1.24E+0(4)	5.31E-1(3)	3.36E+1(9)	6.06E-2(2)	**2.45E-2(1)**
Avg Rank		7.54	5.83	8.21	9.04	4.71	4.79	3.00	8.88	1.92	**1.08**

Table 6: A SUMMARY OF THE RANK OF THE 10 SUBSET SELECTION METHODS WITH RESPECT TO DIFFERENT PERFORMANCE METRICS.

Performance metric	GHSS	GAHSS	GIGDSS	GIGD+SS	DSS	IDSS	CSS-MEA	CSS-MED	RVSS-PD	RVSS-AD
hypervolume	**1.04**	2.12	8.54	5.08	4.96	6.04	7.25	6.96	6.40	6.60
IGD	4.71	4.00	7.04	7.50	**3.54**	4.67	5.79	4.83	6.44	6.48
IGD+	2.25	**2.08**	8.04	4.12	5.67	5.75	6.71	6.17	6.65	7.56
uniformity level	6.33	3.62	6.71	7.58	**1.08**	2.00	5.58	4.08	8.98	9.02
runtime	7.54	5.83	8.21	9.04	4.71	4.79	3.00	8.88	1.92	**1.08**